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HOSPITAL JOURNAL

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DOCTORS AND WAR

LAST month the Minister of Health outlined to representatives of the British Medical Association the Government's plan for the organisation of the medical services in wartime.

A branch of the Ministry of Health will be established in each of the twelve regions into which the country is to be divided for the purposes of civilian defence, and will be responsible for the medical services in its area.

Qualified practitioners will be divided into the following categories :

(1) Doctors serving with the armed forces ; (2) those required for the hospital services, either immediately or in reserve (including those needed for the maintenance of medical education) ; (3) those in control of first-aid posts ; (4) medical officers of Government departments and local authorities ; (5) medical boards for examining

recruits. In addition a large number of general practitioners would be needed for maintaining the essential medical services for the civilian population, including those insured under the National Health Insurance Acts. Doctors removed from their normal work (by the way what is to happen to their practices?) would be paid according to a scale of salaries to be agreed upon between the Government and the British Medical Association, and the Government would reimburse local authorities and hospitals for the extra expense involved.

The most important part of the Minister's statement was the announcement that the Government assumed that hospitals situated in vulnerable areas would be available only for the initial reception of casualties. The therapeutic equipment and the main body of the medical and nursing staffs of such hospitals would be removed to hospitals in relatively safe districts to which they would be affiliated. More details of this part of the scheme will be known shortly when the Ministry of Health's memorandum on hospital policy is published.

The success of the plan will obviously depend on its practical administration, but in outline, at least, it is comprehensive and flexible. It is clearly not immediately possible to enrol every doctor in his appropriate category, since the relative requirements of the different categories cannot be exactly estimated in advance ; for instance the number of doctors needed for service with the armed forces will depend on the size of the forces, and that in its turn depends on varying political and strategic factors. But it should be immediately possible to assign all those with special qualifications to suitable work, and to establish a skeleton organisation for each branch of medical service that would be necessary. Finally, the plan clearly defines the wartime function of hospitals in vulnerable areas, and thus enables those in charge of them to begin to make the appropriate technical and administrative adjustments.

The response to the British Medical Association's questionnaire shows how far the medical profession is able and willing to meet the demands that will be made upon it. Ninety-five per cent. of the effective total on the register have volunteered for work, which means that there are at present available 45,000 doctors, of whom 3000 are already attached to service units. As yet no analysis of the replies to the questionnaire has been issued, so that it is impossible to say for what categories of service the remaining 42,000 have offered themselves.

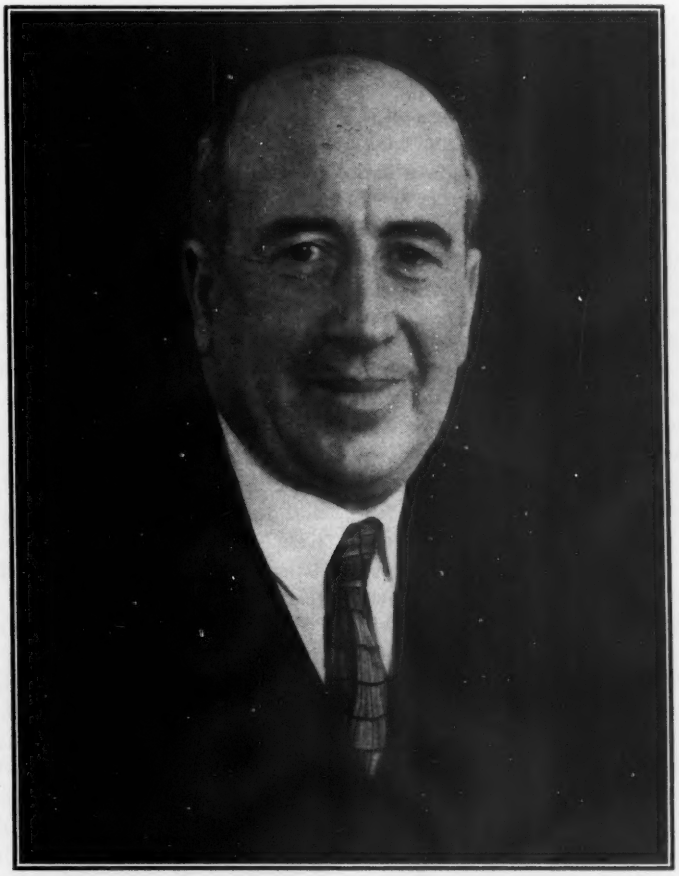
There is no direct reference to the position of medical students in the Minister's statement, but it is clearly the intention of the Government that medical education shall be continued at the base hospitals. We shall know more when the report of the St. Bartholomew's Hospital A.R.P. Committee is issued. Meanwhile we understand that it has been decided not to use students for other than skilled medical work. It is probable that a student is incapable of this until he has completed the majority of his clinical appointments, but he is a valuable life to the community, because it takes more than three years to replace him, and because an adequate reserve of fully trained doctors is essential, both for the later stages of a war and also when peace comes. It would have been grossly uneconomic to employ students as chauffeurs or stretcher-bearers in dangerous areas, when they might have been continuing their education. It is also to be hoped that the committee will clarify the position of those pre-clinical students who have not yet passed 2nd M.B., since they are not at present included in the list of reserved occupations, and it is thus open to them to volunteer for work outside the hospital.

How tedious are all these preparations! A character in *The Cloister and the Hearth*, on being asked by a stranger to the city the meaning of a hullabaloo which has arisen in the street, replies, "Oh, just a miracle". We have learnt to be as drearily familiar with that recurrent phenomenon of *our* time, the international crisis—

> Most joyous age of horrors, crises,
> Disasters of all shapes and sizes,
> The one way left you to surprise is
> One day—just one !—*without* a crisis.

PROFESSOR H. H. WOOLLARD, M.D., D.Sc., F.R.S.

THE tragic death of Professor Herbert Henry Woollard at the early age of 49 years has robbed us of one to whom the welfare of Anatomical Science was one of the foremost things in his life. Australian by birth, he was a graduate of Melbourne University. He first became associated with the anatomical world, as opposed to clinical medicine, in 1919, as a student in the Primary Fellowship Class at University College, London, after returning from the war with a distinguished record and the rank of Lieutenant-Colonel in the Australian Army Medical Service. He was mentioned in Dispatches, and awarded the Croix de Guerre avec palme.



Having passed the First Examination he became associated with Sir Grafton Elliot Smith, who saw in Woollard a man of great promise with a mind of unusual brilliance, which would have been wasted in other than academic life. He persuaded him to join the staff of the Anatomy Department. Woollard threw all his energy into his work, and soon became outstanding both as a teacher and research worker. He would study until late into the night, sometimes reading in the Library, and at other times doing experimental work. He gained a Rockefeller Foundation Scholarship in 1921, and went to Johns Hopkins University at Baltimore, Maryland, U.S.A., where he came under the influence of the Mall School of Experimental Anatomy, as exemplified by such names as Sabin, Streeter and Weed. This year served to emphasize still further his attitude towards the value of experimental methods in anatomy, first gained under the influence of Sir Grafton Elliot Smith. Two stories have survived from this visit. Whilst Woollard was walking down the main street of Baltimore he slipped on a banana-skin; he lay for a few seconds, and then in a small voice exclaimed, "God, what a country". The other recounts his being chased by "cops" late at night, who had seen him climbing over the walls of the anatomy building after returning to finish some work in progress. He escaped them!

He returned to University College the following year, and in 1927 was made Assistant Professor of Anatomy. At this time some of his best research work was done, on the innervation of the heart and blood-vessels. He became very skilful in the application of the technique of vital staining with methylene-blue, and used this method with great effect in his study of nerve-endings. At this time also he published his book, *Recent Advances in Anatomy*. This book had great influence in stimulating the progress in anatomical teaching and research in this country. The non-experimental type of anatomy which was traditional appeared to have no future in its application to medical problems; and had come, as Professor Le Gros Clark states, "to surpass the bounds of both expedience and decency". His book called attention to the vitality of anatomy in other countries, and particularly in the

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United States, and the importance of using experimental methods in the study of structural organization. It can be truly said that Woollard's influence was responsible for a movement to make anatomy a vital science in this country.

In 1928 Woollard went to Adelaide University, returning to St. Bartholomew's in 1930. I first met Professor Woollard when I was a student at "Bart's." in the old Anatomy Department. It was at once obvious that to the Professor anatomy was an experimental science, and that he was willing to help not only his staff, but also his students in making original investigations. He even allowed students the use of his apparatus in their spare time. A few of us timidly approached him and asked if we might be allowed to do some "Research". He welcomed us, put us in his room, and everything he had was at our disposal. He would talk to us upon a host of subjects and make us feel he was a student like ourselves, and even willing to learn from us as we from him.

The Professor's room at the top of a winding iron staircase was in many ways like an information bureau: staff and students alike would come in an unending stream, bringing a variety of problems. His previous wide clinical experience enabled him to work in co-operation with surgeons and physicians, and with his help new advances were made, especially in the field of the surgery of the sympathetic system, and also in problems concerning the lymphatic system. Visitors found that his opinion in other matters was as sound as it was in science, and many received valuable advice on private difficulties. Any person asking for information solely for his own personal advantage was made to feel that he was committing an unpardonable offence, for Professor Woollard feared to offend no man.

In time, owing to his great persistence, a number of improvements were made—the lighting in the dissecting-room was improved, the underground storage vaults were converted into photographic rooms and the Professor's room slowly changed from office to laboratory, and the experimental work became a major consideration. Many who appreciated his work welcomed this new experimental discipline. Realizing the great physical demand made by a medical career, he organized a Student Health Service, which has proved of inestimable value.

In time it became evident that the Medical School and the old Anatomy Department in particular were inadequate. Plans for a new college were prepared; "Bart.'s" was to be supreme in pre-clinical subjects as well as in the clinical field. In the great effort that brought into being the new Medical College, Professor Woollard tenaciously supported the great work of Sir Girling Ball. His own particular department he planned with rare skill and foresight, and into this, as into most things, he threw himself with almost reckless energy. It was with deep regret he left his new home soon after its completion.

As a teacher Professor Woollard was magnificent. With anatomy as a text he stimulated the students to feel that the future of medicine lay not only at the bedside, but in the experimental laboratory as well. Pathology, he said, was based on sound anatomy and physiology. Frequently on Saturday mornings he would give informal lectures to a group of ten or so students on any subject they liked to choose; he gave stimulating discourses on physiology, medicine, surgery and endocrinology, so wide was his knowledge of the fundamental principles of biological science.

His personal research work was largely done late at night; he felt free to think and work then, when the constant interruptions of the day were over. It was at such times that he became most human; he would talk of his ideals and difficulties, and his passionate desire to disseminate experimental methods into the study of medical science. His greatest research interest was in neurology, and especially cutaneous sensation; the problem was a very satisfying one to him. In this work he combined psychological, clinical, physiological and anatomical methods of approach, which suited his wide scientific interests. It was his greatest joy to experiment on himself, because he used to say, "Man is the finest experimental animal".

Professor Woollard was a great man of brilliant intellect and colourful personality. As a friend and teacher he was inspiring; his singleness of purpose and high ideals were a source of admiration. He never spared himself; his industry was amazing. He had given to his work for years on end all the energy of which a human being is capable. He was animated by one great ideal—to induce medical students to use facts at their disposal logically, and thus rid medicine of the future of quackery and empiricism. He hated self-seeking and hypocrisy, and was outspoken and provocative in conversation. He was amazingly generous to his colleagues and friends, both anatomical and clinical, assisting them to his uttermost. During the last few years he worked against great difficulties; he was often attacked by acute anginal pains, which he suspected were cardiac in origin, but although these at times made him somewhat brusque, they never affected his judgment. Woollard, like Pavlov, was passionate in his work, and a truly courageous man.

In 1936 Professor Woollard left Bart.'s for University College. Such a move was inevitable—University College was his anatomical birthplace, and so many

of his lifelong friends worked at the same College. He always had a warm place in his heart for St. Bartholomew's Hospital, which he unhesitatingly regarded as the greatest of the British teaching hospitals.

The value of his experimental work recently received recognition by his election to a Fellowship of the Royal Society ; this he regarded as a great honour.

Those who were privileged to work with him and enjoy his friendship have lost an inspiring leader, and Anatomy one of its leading disciples in this country.

Professor Woollard leaves behind him a wife, to whom he owed so much of his success, and two sons. To them we extend our deep sympathy in their tragic loss.

GRAHAM WEDDELL.

Sir Girling Ball sends us the following :

" It is not my intention to add anything very much to the admirable notice already written about Professor H. H. Woollard.

"There is one point, however, on which too much stress cannot be laid, even if it is known already to a large number of people.

" Woollard entered our Medical College as a teacher at a time when the Anatomy Department had been without a professorial head for some months. Little was known of him at Bart.'s. The equipment given to him was meagre. The dissecting-room was an old one, cold and forbidding in winter even to a hardened Englishman. The accommodation for the Professor was an upstairs chamber used also by his demonstrators and technicians ; there was no corner in which he could have privacy or receive his friends.

" On his arrival he uttered no word of complaint, receiving without a murmur that which we had to give. Within a very short time the department became a hive of activity ; everybody was working with or for Woollard. His methods of teaching, new to our School, revolutionized those that had been in existence for years, and there soon arose a feeling of enthusiasm towards the little man who, after re-organizing his department, so wholeheartedly extended his services to the benefit of his colleagues.

"For some years the question of acquiring a new Medical College had been in the air. Schemes more or less adequate were devised. Shortly after the arrival of Woollard the Charterhouse site became available. The project of acquiring the buildings and so establishing a Medical College without equal was magnificent, but the task was prodigious and, without assistance and stimulation, impossible. Indeed, the idea was almost given up, as so few thought it possible, and those few were not, perhaps, so full of enthusiasm as they might have been.

" One day the idea was put to Woollard, and he was asked to give his opinion as an outsider, for he had only recently come among us. He visited the site, examined the buildings minutely, and came back with such enthusiasm and stimulation as few have it in their power to drive into others. It was decided to go on with the scheme.

" I can state—and nobody is better qualified to do so—that if it had not been for Woollard's magnificent enthusiasm, and his subsequent most valuable, wholehearted and freely-given assistance, St. Bartholomew's Hospital Medical College would never have acquired the first-class equipment that it has to-day.

" It seemed to us who knew his value that we could not do too much for him. Everything was done in his department that he asked for ; and we had every hope that he would stay with us and found a great school of anatomy at Bart.'s. Alas ! it was not to be. His memory, however, will ever remain with those who were privileged to work with him."

In the eyes of Professor Woollard anatomy was but an approach to medicine, and to be used as he used it in a search for those fundamental truths upon the knowledge of which progress in medicine depends. One will remember always the fiery eloquence with which he explained this to the many who regard anatomical study as sterile and a mere exercise of memory. How well he demonstrated the truth of his view is shown, not only by his own contributions, but by the numbers who came to him for assistance with their varied problems, and who owe to him new conceptions. At other times his wrath would be directed against present methods of medical practice, since he believed that those best fitted to contribute to medical knowledge often made no attempt to do so. Outspoken and easily roused on such matters, his essential kindness was always obvious in his eagerness to help and encourage all those with whom he came into contact. His modesty, too, brought him very close to his students and assistants, and his transparent honesty and love of truth must have impressed all who knew him.

To have glimpsed, even but dimly, his motives, to have known his inexhaustible energy, increased only by his failing health, and to have seen his achievements in the varied fields of organization, teaching and research will be for many an inspiration now that they can no longer go to Woollard for advice. His memory will always remain fresh for those who had the privilege of working for him.

JOHN O'CONNELL.

HEPARIN

By Professor A. WORMALL, D.Sc.

THE search for blood anti-coagulants has been prosecuted almost as strenuously as have the more spectacular efforts to obtain substances which will promote coagulation, and which might be suitable for the treatment of hæmophilia. In the former field an outstanding success in recent times has been the identification of heparin and its production on a commercial scale, as a result of the observations of workers in Toronto, Stockholm and Copenhagen. Clinical tests have given very promising results, and it seems probable that more extensive use of heparin will be made in the future.

The mechanism of the clotting of blood has been investigated by a large number of physiologists and biochemists, and one result of this interest has been the production of an almost equal number of theories to explain the process. Perhaps it does not matter really which theory we adopt, since most of them provide a satisfactory basis for the study of coagulants and anti-coagulants. Expressed in the simplest form, most theories can be reduced to the following :

(1) Prothrombin (+ calcium ions)—→thrombin (or thrombase).

(2) Thrombin + fibrinogen—→fibrin.

According to Howell's theory, which is the basis of most theories of blood-clotting, the first reaction is inhibited in circulating blood by heparin. When blood is shed, this heparin is " neutralized " by cephalin or some similar substance liberated from the platelets or from the tissues. The clotting machinery is thus irreversibly set in motion. According to most authorities, therefore, the fluidity of circulating blood is largely maintained by heparin. Other workers do not accept this view that the dominant *rôle* is played by heparin, but all are agreed that, whatever its function in the intact animal, this substance is a very powerful anti-coagulant.

Heparin was " discovered " in the liver about twenty years ago by W. H. Howell and his collaborators, who found that it was of carbohydrate nature. Chemical studies on this substance made very little further progress until 1933, when Charles and Scott, in Toronto, devised a new method for the preparation of the active substance from liver and lung. This achievement opened the way for more serious chemical investigations, and these workers, and several others, confirmed the view that heparin is a complex carbohydrate. The next step was made by Jorpes (1935) who showed that it contains a hexuronic acid (probably glycuronic acid), a hexosamine (an amino-sugar) and a considerable amount of ester sulphate. Jorpes has reached the conclusion that heparin is not a single chemical compound, but is a mixture of polysulphuric esters of mucoitin, *i. e.* it is a complex carbohydrate containing amino-groups, acetyl groups and sulphate groups. It is certainly remarkable how frequently it is found that specificity in the animal body is determined largely by carbohydrate groupings ; in more recent years this has been well illustrated by observations on bacterial antigens and on the blood-group agglutinogens, and now heparin has been added to the list of complex polysaccharides which have powerful and specific activities in the body.

It has not been possible as yet to correlate this physiological activity with any particular grouping in the heparin molecule, but Jorpes has produced very satisfactory evidence that the activity is related to the sulphate groups, and he makes the pertinent observation that several synthetic blood anti-coagulants (Congo red, Bayer 205, chlorazol fast pink, etc.) contain sulphate groupings (*cf.* Bergström, Jorpes and Wilander, 1937).

The part played by heparin in the maintenance of the fluidity of circulating blood may at present be a purely academic problem, but it is interesting to note that the Stockholm workers (Holmgren and Wilander, 1937 ; Jorpes, Holmgren and Wilander, 1937) have found that it is produced by the tissue mast-cells of Ehrlich. Since these cells are mainly localized in the neighbourhood of the smaller blood-vessels, heparin secretion into the blood-stream is clearly indicated.

The preparation of this highly purified non-toxic material has enabled the Toronto and Swedish workers to use heparin for the prevention of thrombus formation in man. Best and his colleagues have shown that thrombus formation produced in small animals by mechanical or chemical means is inhibited by heparin, and subsequent clinical tests have given encouraging results. It is not possible in this short review to quote all the literature on this subject, but those interested in recent developments of this work are referred to the excellent reviews of Best (1938) and Murray and Best (1938).

Another clinical application is the use of heparin for blood transfusions, either by addition to the blood taken

from the donor or by injection into the donor. Hedenius (1936, 1937) has found the latter method satisfactory in 150 transfusions and he claims that it fulfils all the requirements of an ideal blood-transfusion method. The donor is ready for the transfusion ten minutes after he has received the heparin injection, and his coagulation time returns to its original figure in about one and a half hours; it is presumed that during the latter period he should take special precautions to avoid injury.

Heparin is also being used by many workers for the collection of blood samples for chemical and cytological examination. Heparinized blood is suitable for all the common determinations (*cf.* Wilander, 1938) with the exception of the Wassermann reaction, and it seems probable that more extensive use of this anti-coagulant will be made in physiological and biochemical investigations. One serious difficulty which confronts investigators in different countries is the question of standardization. In view of the observations of Jorpes, which suggest that purified heparin preparations are really mixtures, it would seem very desirable that the various authorities in this field should agree to adopt an "international" standard.

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PURPOSE IN DISEASE

By J. M. JACKSON.

I THINK if I were to ask a hundred general practitioners what was their philosophy in medicine I should find that the majority had none. Among the specialists I should find an assortment of beliefs. To the bacteriologist the world of man is a seething mass of microscopic enemies, to the endocrinologist it can be summed up in terms of hormones. What about the surgeon, the biochemist and the psychologist? Each has his peculiar philosophy according to his particular experience and method of treating disease. The G.P., however, belongs to no special camp, but merely observes and takes leaves out of all books.

The profession can be compared to the clerical in the number of its denominations; we see Catholic and Protestant in the rivalry between physician and surgeon. Fundamentally, however, all denominations are based on one basic principle—in the case of the clerical, the soul of man, and in our own the behaviour of the body-mind in health and disease. I will not attempt to define what health and disease are; Lord Horder has recently done this in his conception of health as "a whole man for the whole of his life", and disease, or unfitness, as a part-man. Let us forget definitions, as they are misleading and make us think we know more than we do. Who can say where disease starts and health ends?

The impression that I had on leaving hospital was that man during his life must be looked upon, like Christian in *Pilgrims Progress*, as a creature warding off perpetual pathological burdens, or running a continual gauntlet of bacteria. I did not believe that disease could possibly have any purpose in man's life other than a destructive one. I also had the idea of my own future omnipotence as a healer, but time and experience soon brought me to humility. I now place less faith in my own healing abilities and more in those of the patients themselves. I began to think—how is it that patients die under skilled medical care, when often they should live, and why do they get well in spite of unorthodox methods? It is most annoying for the young practitioner to see men and women flourishing under homœopathy, osteopathy, and all the other cults in which Society delights.

The Christian Scientist told me that "if drugs possess intrinsic values or intelligent curative qualities, these

qualities must be mental "* but remembering what I had been taught in pharmacology, I soon dismissed this as unscientific. Yet, what honest doctor will deny the mental factor in the success of his prescriptions ; the faith in the bottle of medicine still exists. If you have any doubt of this, you only need to look at the capital of some of our most famous patent medicine firms. To be able to make a living in practice to-day we still have to pander to the beliefs of our patients. We would be bad doctors and fools if we did not, as the suggestion produced by the neat wrapping and labelling of our bottles is often as important as the chemical action of their contents.

Suggestion—nobody knows what it is, but clearly it plays a tremendous part in the treatment of our patients. Let us see what are the factors in therapeutics which we are dealing with every day consciously and unconsciously:

(*a*) There is the specific treatment for the patient's complaint: Drugs, sera, radiotherapy, physiotherapy—we need not point out their intrinsic values.

(*b*) There is surgery. I do not consider surgical treatment as specific in the same sense as (*a*) ; it is entirely mechanical, the fundamental principle of which is " If the patient's eye offend him, pluck it out ". Why the patient's eye should offend him is often beyond our ken.

(*c*) There is the effect of the person administering treatment, irrespective of the method used. We now know something about transference and its part in all forms of human behaviour.

(*d*) There is the environment in which treatment is given. This may be the patient's own home, nursing home, hospital or spa.

(*e*) There is the patient himself, with his idiosyncrasies, chemical and psychological.

It is quite obvious that a gigantic part is taken up by mental factors in the treatment of disease, but I am afraid I learned very little about this in my student days. I looked upon cases as something concrete, in terms of demonstrable pathology, which reacted like chemicals in test tubes when drugs were poured into them.

One of the first things that impressed me in practice, as it must everbody else, was the frequency with which I came across functional complaints. By this I mean that next to wax in the ears, colds and other trivialities, I came across patients for whose symptoms I could find no organic cause. You will probably say that it was because I was such a bad diagnostician, but that cannot be wholly the cause. For an understanding of these symptoms I turned to psychology, and especially to Freud. Do not think I am an expert psychotherapist or a psycho-analyst. I am not, but one can digest Freud's writings without being psycho-analysed. I would here advise every student before embarking in practice to read Freud, and read him again. Your understanding of the functional and neurotic complaints will be of far more service to you than any detailed knowledge of anatomy and surgery (unless you devote yourself to surgery). If you see twenty to thirty cases of acute appendicitis a year in your future practice you will be doing well, but you are bound to see ten times as many functional and neurotic cases ; unless you have some understanding of them they will be your greatest bugbear.

* Mrs. Eddy, *Science and Health.*

The main purpose of this article is to draw attention to this fact and to protest against the deplorable state of our medical education in psychology. We are overburdened with a vast medley of futile facts which are no use to us in later life ; we go forth into practice with an entirely materialistic conception of our Art, and the conditions we meet most frequently in practice are those about which we are taught nothing. The day will come when students are taught to dissect the human mind in the same way that they dissect the body.

At present there is distrust and scepticism in regard to psychology among the profession, and especially among general practitioners ; this is largely due to ignorance, but is also due to the quarrels among the psychologists themselves in their different schools. There can be no doubt whatsoever of the virtues of psychotherapy. Anybody who has seen the recovery of psychoneurotics during analysis will vouch for them. The difficulty at present is that there are so few trained analysts for the volume of work to be undertaken; there are between 50-60 in London. If each of these analysts is seeing at a maximum eight cases a day, this means that in the Metropolis only 300-400 cases can receive the benefit of analytical treatment. I could collect 40 cases in my own practice alone if there were the facilities for treatment. I must not give the impression that I have no use for other forms of psychotherapy, but here again the facilities for treatment are at present limited and the waiting lists are long—at least, that has been my experience. The poor G.P. is driven to continue with his " bromide and encouragement " method, which is the only one he knows, and is utterly useless in the psychoneuroses. The old faces haunt his surgery regularly until, poor man, in desperation, he tries to run away or sneak in by a side door, not knowing what to do next.

Let us look at organic diseases finally. Here we already realize the tremendous part psychology plays in their treatment, whether orthodox or heterodox. What a number of diseases we meet whose cause is at

present unknown, but is commonly attributed to a psychogenic origin—idiopathic steatorrhœa, mucous colitis, paroxysmal tachycardia are a few. Pity the poor dermatologist, what a rotten deal he gets—alopecia areata, angioneurotic œdema are a few of his snags. What about warts?

If ever there is a doctors' addition to the Litany, it ought to be "From asthma, migraine and urticaria Good Lord deliver us". Our chronic asthmatics search Harley Street in vain, they have all sorts of concoctions pushed into their arms by allergic enthusiasts, but they get no better. When we know more about the minds of our allergic cases we shall have a better understanding of these diseases. Can we look upon them as "organic neurosis"? I do not know, but suspect that the particular allergen has a far greater significance to the patient than we realize.

The allergic diseases, with that often accompanied symptom, indigestion, lead us on to peptic ulceration and hyperthyroidism with its text-book signs of anxiety —what a field for investigation. Never was medicine at such an interesting stage. Is there really such a strict frontier between functional and organic, or can functional disease become organic; if so, what determines which organs should be affected? Let us keep an open mind, and be ready for shocks when they come.

Sometime ago I was introduced to four books by Groddeck, as a patient drew my attention to his theories of disease. Groddeck applied psycho-analysis to organic disease, and if one can believe what he says his results are amazing. Some of his conclusions are perhaps a bit far-fetched, but he talks a lot of common sense about constipation. Should it be possible to apply psycho-analysis to organic disease, as Groddeck claims, then medicine is at the beginning of a great revolution. This does not mean that we shall abandon physical methods in treatment, but that our understanding of the body-mind will be enriched a thousandfold. Disease will then be looked upon as having a purpose in the life of man.

MOUNT EVEREST IN 1938

(Being a doctor's account of the adventure.)

By CHARLES WARREN.

(*Continued from p.* 112.)

We now had but a comparatively short way to go before coming to the Rongbuk monastery at the foot of Mount Everest. Hitherto we had kept fairly well, barring Oliver, who had developed a bad cold at Shekkar Dzŏng. But the day we turned into the Rongbuk valley I began to feel ill, and on arrival at the monastery retired to my tent with a headache, sore throat and fever. We arrived at Rongbuk on April 7th, eighteen days earlier than in 1936. But even this slight difference in dates meant that conditions of living were much more severe. For the next four days I was confined to my tent with an illness that was very like influenza. Soon it began to snow, and a gusty wind which swept about the drifts added much to the discomforts of life. On April 10th the rest of the party left Rongbuk to start making the camps up the East Rongbuk glacier, and I was left behind to recover from my illness. Five days later I had recovered sufficiently to join the others at Camp III. A few days later Tilman went sick with symptoms which were much the same as mine had been, but he also lost his voice with laryngitis, so he had to return to Rongbuk to recover. These illnesses left us with troublesome coughs and post-nasal infections. Indeed my own cough was so irritating that I could not go more than a few yards uphill without coughing, until I became completely exhausted and had to sit down to recover. Coughs and sore throats have been annoying features on every expedition to the mountain. They are probably due to the combined effects of mouth-breathing in the rarified atmosphere, and dryness of the air pre-monsoon, for when cloud descends upon the East Rongbuk glacier during this season the sore throats improve remarkably. So far we have found no way of preventing them. But in my own case I found that I could get relief from my cough by wearing the "Matthews' respirator", a simple device designed for another purpose, namely, to prevent excessive loss of heat in the breath when climbing at great altitudes. The respirator consists of a few layers of copper gauze mounted in a face mask. Heat is conserved by the gauze and moisture condensed on it with every expiration; then on inspiration this heat and moisture is imported to the cold dry air taken in.

When Camp III was first established it was still very

cold, and we could see that a tremendous wind was blowing higher up on the mountain. We all had coughs or sore throats, and it was obvious, too, that no one was really sufficiently well acclimatized to make a serious attempt on the summit. In spite of this we were anxious to get on with the task of opening up a route to Camp IV on the crest of the North Col. We found the slopes below the Col at this period were ice from top to bottom, so steps had to be cut laboriously all the way. At a certain place we were compelled to go beneath some alarming-looking ice cliffs, where I found it best not to imagine the consequences should they break away while we were still on the slope. After two days' work on the North Col ice we had seen enough to be convinced that the route we had chosen could be completed at any time without much further difficulty. But now the question to be decided was how soon to move an assaulting party up to Camp IV on the Col. Opinion on this matter was divided, but the majority were in favour of postponing an attempt on the summit, though Lloyd and I were anxious to carry out oxygen trials above the Col as soon as possible. It was argued that no one was yet fit enough to make such an attempt; and further that there would be a serious risk of frost-bite if it were made so early in the season. Then, too, there was a danger of breaking the health and morale of the high porters on an abortive early attempt. Shipton strongly advised us to retreat for the time being to lower levels in the comparatively sheltered Karta valley. After endless argument his plan was agreed to, and we decided not to come back to Camp III to continue the assault until May 15th, by which time conditions would have become favourable on the mountain. In a normal year this plan would have allowed a clear month for climbing the mountain before the onset of the monsoon ; and we decided that we could only lay plans for a normal season.

The district known as Karta Shika is situated close to the northerly slopes of the Himalayas, and in consequence it enjoys a heavier rainfall during the monsoon than do other parts of Tibet. We had hoped to be able to live off the country at Karta, but only in the summer, between the months of June and October, does it become a flourishing agricultural district. When we went there we discovered that fresh food was difficult to obtain.

The great Arun river, as it flows from the Tibetan plateau into Nepal, cuts a series of remarkable gorges through the loftiest part of the Himalayas near Karta Shika. Wager considers " that the Arun and similar rivers have always had approximately their present course, established at a time when there was a continuous slope from the Ladakh range (on the Tibetan plateau) to the Plains of India, and that the Himalayan mountains have risen across the course of the rivers, but so slowly that the rivers managed, by rapid erosion, to keep their channels open ". We camped in a grassy hollow of the hills close to the entrance of the Arun gorges. It was but a short climb up to the crest of a rocky spur above the camp, and from that point we could peer down at the silver band of water a thousand feet below.

It was a relief to be able to laze about on grass once again, where we were sheltered from the discomforts of the Tibetan wind by the pine trees. A respite from the rigours of the East Rongbuk glacier was clearly much needed, for Tilman now went down with a mysterious fever, Oliver and Smythe had sore throats, Lloyd had developed an alveolar swelling, and Odell was suffering with toothache. For myself, I was feeling bruised and shaken as a result of a fall down an ice slope on the way over, and now I started a sharp attack of diarrhœa. We had been instructed to cut down loads to a minimum for this journey, but fortunately I had insisted upon bringing a certain quantity of medical equipment with me, even at the expense of adding to my own load. I was kept busy during the next few days attending to the sick, and I had to draw Odell's tooth. Throughout this period we experienced unsettled weather, and snow fell on the surrounding hills. Joking references were made about the arrival of the monsoon, but it was not until a month later that we discovered from the letters which we received from India that we were actually experiencing the first of the monsoon snowfalls at this time.

On May 10th we left our convalescent camp to return to Everest. Tilman was still a sick man, but the rest of us were better for the interlude. We were back in Camp III on the 18th, where it was now comparatively warm, with much cloud about. Snow fell every afternoon for the next few days, but work soon started on the Col. There was less ice on the slopes now, and the dangerous ice-cliffs beneath which we had been compelled to pass before had avalanched, leaving blocks the size of a house strewn across the route. Now that the mass had come away the lower section of the climb was much safer, but higher up the slope was very steep, and we had the labour of fixing almost 800 ft. of rope to make it safe for loaded porters to go up and down. Near the top a treacherous traverse had to be made across an exceptionally steep slope. Oliver, with two porters, was cautiously negotiating the traverse when the snow avalanched beneath his feet. His party shot away down the slope, but Tilman and I, foreseeing what might happen, had anchored ourselves firmly behind the lip of a small crevasse, and when the drag came we were able to hold them up quite easily on the rope.

The way was now open to the upper reaches of the mountain, but operations were held up by more unsettled weather. The mountains were in cloud most of the day, and we were recording high temperatures at night. As we lay in our tents the increasing dangers of the North Col route were forced home to us by the incessant roar from the avalanches pouring off the north-east face of Everest. Although nobody liked to admit it, we all felt that the monsoon had indeed arrived. At last there was a break, and Tilman decided to move the first assaulting party and the doctor up to Camp IV. Meanwhile Smythe and Shipton had left to go round to the west side of the North Col because it was felt that the possibility of finding a safer route to the Col from that side should be explored.

Six inches of snow fell during our first night at Camp IV, leaving the rocks on the north face of Everest barely visible through the fresh white mantle. Clearly all hope of climbing the mountain had vanished for the moment. Tilman had struggled on up the north-east spur for another thousand feet, but found it impossibly heavy work ploughing through the drifts. We lingered on for three nights at this camp before reluctantly deciding to abandon the attempt, and get down before the snow on the Col became too dangerous for the descent. There was nothing to do but retreat down the glacier and wait for an improvement. Meanwhile we had agreed that our next move should be a concerted exploration of the westerly approach to the Col. If the weather improved we would send up assaulting parties from that side.

A few days later our party was creeping up the little bay of glacier which lies beneath the vast north face of Everest, keeping close under the precipices of the North Peak to avoid crevasses. For a time we were compelled to come within range of the stones which were falling from the crags of this peak. Now and then a sharp report would be heard, coming from somewhere high up amongst the crags. We would peer anxiously into the mists until a few seconds later, with a horrible whirring noise, a shower of rocks and stones would pepper the snow a few yards away. Whenever this happened we were goaded to even greater speed, short of breath though we were at this altitude.

The crest of the North Col was already aglow in the morning sun when we set out towards the unbroken sweep of snow which on this side led up to it. We crossed the debris of a large avalanche which must have fallen quite recently, for it had swept the slope clear, leaving bare ice. This ice-slope had to be climbed before steps could be stamped in snow. The icy section, though steep and unpleasant for the loaded porters, seemed infinitely safer than the upper slope, where the snow had failed to come away with the rest of the avalanche, and was lying in a very critical state.

And now we were back in camp upon the North Col, where we heard from the porters we found there that they had left Smythe and Shipton at Camp VI ready to make an attempt on the summit. The men who had helped to carry this camp up to 26,000 ft. had returned safely and were well, except Pasang, who was said to be behaving oddly and was very exhausted. I crawled into Pasang's tent to see him, but apart from his speech, which seemed to be giving him a little difficulty, I noticed nothing wrong at the time. That same evening Smythe and Shipton stumbled into the big dome tent, and after they had been revived with hot drinks they told their story. They had reached 27,000 ft., but had been prevented from going any further by the depth of the snow on Norton's traverse.

The two climbers were going down off the North Col the following morning, so I asked them to take Pasang with them. But when they tried to make him walk they discovered that he could not do so. I was called to see him and found him aphasic with a right-sided hemiplegia. Obviously it was going to be no easy matter getting a paralysed man down off the Col, so we returned to the dome tent to discuss how this was to be done. In the early hours of the next morning we were roused by groans coming from one of the tents outside. I flung on a few clothes and stumbled out into the snow to find out what was happening. I found Oudi sitting up in his tent groaning and holding his chest. It was dark, so I couldn't see what was happening, but he was cold and clammy, and seemed to have difficulty in getting his breath. We took him into the big dome tent, where I made him comfortable and gave him oxygen. He seemed to be much relieved by the oxygen and soon stopped groaning. Soon he developed a cough and said that he only had a pain in the chest on breathing or coughing. At first I thought that he might be getting pneumonia, so I arranged to get him down from the Col as soon as it got light. I left a note for Tilman asking him to help the others with Pasang, and then conducted Oudi down to Camp III. The subsequent course of his illness was unlike that of pneumonia. The temperature never rose above 100° F., the respiration-rate came down to normal within a few hours, and the pulse-rate rapidly returned to normal. He had a cough for a few days with a little sputum, but it was never blood-stained, and friction could be heard over a small area at the back of the chest. In 1933 Oudi had very nearly died on the North Col with pneumonia, so I was worried at the time, and only too anxious to get him down from the Col, where our supplies of oxygen were limited. The following day we watched the rest of the

party bring Pasang down to Camp III. They had to lower him rope length by rope length all the way down to the glacier.

Tilman and Lloyd had fared no better than the others on the mountain ; they, too, had been stopped by deep snow on the rocks at 27,000 ft. We knew now that there was no longer any hope of climbing Mount Everest that year. Oliver and I should have made the next attempt, but I was now tied with a sick man on my hands. So reluctantly we faced the fact that the attempt must be abandoned.

I have told the plain tale of our adventures. Perhaps I should have mentioned physiological problems, and discussed the value of oxygen on the mountain ; but these subjects would furnish a tale in themselves, so I deliberately refrained from introducing them. I am certain that the matter of finding suitable diets for high altitudes should be given more thought ; it seems to be difficult to find a diet which is adequate, and at the same time palatable at great altitudes. In the matter of vitamins there is less difficulty; on the last three expeditions these have been provided in the form of ascorbic acid (Redoxon), halibut liver oil (Crooke's) and marmite.

It was a calm clear day when we turned away from Mount Everest to start the homeward journey. By a curious paradox the very weather which begins to make life pleasant in these regions brings incalculable dangers of its own on the mountain. For myself, I had no regrets at the outcome of the venture, only a sense of disappointment that we had failed to accomplish more. Perhaps secretly I was even a little glad to know that the highest mountain on earth, the one that so many had striven in vain to approach, still remained to challenge another band of mountaineers. But now they would have to wait until Everest—

> A year's snow bound about for a breastplate
> —leaves grasp of the sheet ?
> Fold on fold all at once it crowds thunderously
> down to his feet.
> And there fronts you stark, black, but alive yet,
> your mountain of old,
> With his rents, the successive bequeathings
> of ages untold.

PSYCHOLOGICAL REARMAMENT*

By E. B. STRAUSS, D.M., M.R.C.P.

THERE can be no doubt but that the next enemy to wage war against Britain will adopt as his main strategic policy the destruction of the civilian morale in the principal towns. Quite clearly, it will be a war waged against our minds, as in the last analysis wars always are. It has become a cliché that spiritual disarmament must accompany or even precede material disarmament. That spiritual rearmament must accompany material rearmament does not appear to be so generally recognized ; yet we must look to our psychological defences, since the world has no intention of disarming, morally or materially, to-day or to-morrow.

A witness has given me a personal account of an air-raid on Barcelona in which six aeroplanes took part, using high-explosive bombs only. There were 700 fatal casualties, but Barcelona did not panic. Wherever one's sympathies may lie in the Spanish war, one must admit, I think, that if Government Spain is defeated, General Franco's victory will not have been brought about by the collapse of the civilian morale of the Loyalists, but through the literal starvation of the population.

Wars are won and lost on the psychic front. Although we must be prepared for air-raids in which 500 bombers will take part, dropping thousands of thermite bombs and possibly some gas, as well as high explosive, that fact need not determine our defeat if we take suitable psychological precautions against the spread of panic.

My small contribution to this problem is intended to be mainly clinical. Although medical psychologists find it convenient to distinguish various instincts, and to classify them according to their apparent purposiveness, yet all the " instincts " are but aspects of one primal instinct—the life instinct. The life instinct " resides in " every living cell in the organism. The psychic order of experience comprises anything which is experienced by the organism as a unified structure. The experience need not necessarily be conscious, for beneath the surface of consciousness one leads a life of psychic processes of all kinds which we term " unconscious ". But there is an order of vital events which are not fully psychic, in so far as they are not fully experienced by the personality as a unified structure. We can term that order of events " psychoid ". Some of the phenomena associated with panic-reactions must be regarded as psychoid rather than psychic. Panic may result whenever there is a serious threat to life, direct or indirect, real or fantasied, conscious or unconscious. When the threat to life is

* Contributed to a symposium on "Panic and Air-Raid Precautions", held by the Medical Section of the British Psychological Society, December 16th, 1938.

very sudden and intense, the immediate result may be a sudden descent into the psychoid order of experience by way of " hypobulic " and " hyponoic " reactions.

One of the many services performed by the psychoanalytical approach and allied disciplines has been the impetus which has been given to the study of psychology from the genetical point of view. We can now see that, like the rings in a tree-trunk, the human psyche structurally records its phylogenetic and ontogenetic history. By hypobulic reactions we mean those psychic and psychoid events which are genetically speaking prevolitional ; and by hyponoic reactions we mean those mental events which are genetically speaking precognitive. To quote Kretschmer, " In the case of adult civilized man, we find that a very sudden rush of overstrong stimuli is associated with an immediate paralysis and exhaustion of the phylogenetic surface-level, and that the level immediately below takes control of the whole motor apparatus. A welter of exaggerated, instinctive tentative movements takes the place of calm (*i. e.* motionless) deliberation. That is the way the acute terror and anxiety syndromes known as panic arise ; examples of crowd panic are observable in sudden disasters such as earthquakes, wars, mine accidents and theatre fires. Panic-stricken crowds behave exactly like a swarm of infusoria in warm water ; they exhibit a storm of aimless movements, blind rushing hither and thither, crushing against each other, shrieking, hustling and shoving. If one of these exaggerated movements succeeds in removing an individual from the danger zone (*e. g.* from collapsing houses), that movement shows a tendency to persist, and calm gradually supervenes on the motor storm with a return to purposive deliberation. However, it is not only the motor activities that subserve flight which are mobilized by such acute anxiety situations ; all the reflex and vegetative activities are brought into play—rhythmical movements such as tremor, clonus and tics, violent and ill-regulated irritative activities of the cardiovascular system, the digestive organs, and all the organs of secretion.

" Mass psychology provides us with examples of similar motor storms occurring in strong affective states other than panic—anger, enthusiasm, political frenzy (under the suggestion of fanatical orators), religious ecstasy. Here, too, these storms can reach the magnitude of convulsions, dancing and ' speaking with tongues '. History shows that such storms were more readily and frequently started amongst primitive peoples than nowadays. Also, children, women and mental defectives are more subject to panic and hysterical reactions than are mature men."

In addition to the hyperkinetic reactions, panic may produce another set of hypobulic and hyponoic defence reactions, which are characterized by immobility. These reactions are phylogenetically comparable to the " sham death " reflexes exhibited by so many animals, both vertebrate and invertebrate. Psychiatric casualties in air-raids will thus tend to fall into two main groups—the hyperkinetic, who run riot, and the immobile, who are rendered stuporose by shock. Each group will require to be differently handled, both in the interests of the individual patient, and to prevent the spread of panic by psychic contagion.

As a direct result of panic reactions we also meet with the following symptoms : severe headache, insomnia, dyspnœa on walking, skin eruptions, high pyrexia with great oscillations, theatrical behaviour, which in individual cases goes so far as extreme childishness and nonsense-talk. In some cases acute panic is followed by twilight-states in which criminal acts may be performed as automatisms, or by the Ganser syndrome or pseudodementia.

This brief account of the clinical aspect of panic will have forcibly reminded you of the hysterical reactions. Is there, in fact, any difference between hysteria and panic ? Although the two groups of reactions imperceptibly merge one into another, yet a useful distinction can be drawn ; the panic reactions may be regarded as being predominantly psychoid, the hysterical reactions are definitely psychic. In panic only the more archaic components of the personality participate ; in hysteria much higher levels of the total personality contribute to the morbid picture. Hysteria is in a much truer sense purposive, seeing that the element of secondary gain, semi-conscious or unconscious, now controls the situation and acts as a fixator of the physical or mental disorders. If properly handled, the majority of the cases of panic-psychosis can be of short duration, and the purely egotistical factor of secondary gain can be prevented from giving rise to the " will-to-sickness ". This must be our guiding principle in war-time psychiatry.

It is impossible to estimate the number of psychiatric casualties in a future war amongst the civilian population. According to some, there are likely to be three psychiatric to one physical casualty at first. The Spanish war, however, has shown that the civilian population can become accustomed to air-raids with all their attendant horrors and danger to life, with the result that the number of acute psychiatric casualties is greatly reduced in the course of time. Nevertheless, a very unpleasant form of chronic anxiety state would appear to be becoming general in Barcelona, a state which appears to be engendered not so much by the air-raids themselves, as by the population not knowing from one hour to another whether a raid is to be expected.

The measures of psychiatric prophylaxis of widest

applicability would seem to depend on one principle, namely the inculcation of group loyalty and the sense of a common aim. Hypertrophy of the individual's ego-ideal must be encouraged, and the will-to-community actively stimulated.

Unfortunately we are not in a good position at the present day to bring this about. It is true that there was much that is false and ridiculous in the " old school tie " spirit ; but it contained immense potentialities for group loyalties of the right kind. Now that all that remains of the " old school tie " are the Western Brothers and Colonel Blimp, our psychological defences are correspondingly impoverished. In the same way, the absence of belief in revealed religion which characterizes the twentieth century has left yet another gap in our psychological defences, with nothing to fill it. The Spartans, in order to prevent the spread of panic, organized their regiments as bands of lovers; but no one could seriously suggest the re-introduction of idealized pederasty as a step towards psychological rearmament.

Yet something must be done—and that quickly. Group psychologists in certain countries have discovered that the quickest method of uniting a nation is by the inculcation of a common hate. It is my belief that although the inculcation of a common love does not appear to give such dramatically quick returns, yet the modification of the ego-ideal in the individual, and the identification with the group-ideal brought about thereby, proves to be a much more reliable spiritual defence in the last analysis.

The Government should start a propaganda campaign on a grand scale to create a new form of patriotism. The British citizen should be made to feel that his country is prepared to stand for and stand by real spiritual values—justice, fair play (divorced from any of its discredited " old school tie " implications), the rights of the individual and the dignity of the individual. And democracy must come to be identified with these ideals, and not equated with any particular form of government or administration.

Every civilian should have his particular duty in war allotted to him beforehand. A knowledge of what to do and where to go to do it, coupled with means of reaching the task required of him as soon as possible, is the best preventative of panic and war neurosis. The conviction that one's own particular contribution to the national struggle is all-important and, humanistically speaking, sacred, is the surest means of preventing a man from reverting to sub-man when attacked by sub-men.

ON NOTE-TAKING

By T. H. HOWELL.

THE other day I had occasion to look through the past panel records of a patient who had previously been attended by several other doctors. What struck me most forcibly on reading the notes was the differing types of entry made by my predecessors. One card, for example, was filled only by a list of prescriptions, occasionally punctuated by a symptom or two. A second gave several diagnoses, but no reason at all for them. At last, however, I came to a note which occupied two complete leaves, and was written in a style which would be considered creditable at any teaching hospital. This gave me all the information that I sought.

This contrast took me back to my first days as a surgical dresser, when I began the clinical work which was so different from life in the dissecting-rooms. I remembered the gruff voice of Sir Holburt Waring on my first round, as he asked the new senior dressers why they had to keep records of their cases. After each one had given a hastily concocted answer to his question he grunted and replied, " You write those notes for your education and my edification ". I puzzled over this statement for several days, and, even now, I am not sure that I have got to the bottom of it.

Of course, to appreciate the real value of good notes, it is necessary to leave a teaching hospital and go straight as locum to a general practice in which the doctor has known most of his patients personally for a long time. Each man and woman expects you to know all about their " case ", and unless the records have been carefully kept, you find yourself completely in the dark. Many folk complain that " the medicine has been changed, doctor, and it is not as good as the last bottle ". Sometimes it is necessary to start afresh by taking a complete history of each patient. This brings home the value of carefully written notes in a way that nothing else can.

But it is not always the fault of the panel doctor if his notes tend to be inadequate. In many cases it is his teachers who are to blame. So much stress is laid upon the examination of patients in a teaching hospital that the history is relatively neglected. Even at Queen's Square and similar places the physical signs are all-important as a passport to qualification.

At Bart.'s, surgical dressers used to have a little green book presented to them before they entered the wards. In this they found a guide to surgical note-taking and examination which was very valuable even after they had left hospital. The clinical clerk, however, has his attention directed more towards physical signs than to history-taking at first, and has no book to compensate for this. "Hutchison and Hunter" deals mainly with methods of examination, while "Horder and Gow" is a trifle advanced for the embryo physician. Geoffrey Bourne's book on case-taking is one of the few helpful books, at this stage.

I remember dreading my first round in a medical ward. I had copied out the house physician's notes word for word, but possessed little idea of their significance. As I read the history in a low voice, I hoped frantically that my stern-looking Chief would not ask me any questions about the case. Fortunately, at a critical point in my ordeal, the patient in the next bed had a heart attack, which diverted attention from me and I was saved. In fact, I never acquired the ability to take even mediocre histories until my second three months' clerking, when the opportunity of seeing Lord Horder's method of approach to a case taught me a great deal.

On going into practice after leaving hospital, it will be found that the relative importance of symptoms and physical signs changes completely. In these circumstances it is very useful to keep careful records. Everyone has his "off days", when he is unable to think clearly or to make an accurate diagnosis. Even so, notes written on such a day may strike a responsive chord in your mind a few days later. I can recall several cases which illustrate this. Especially one woman with headache and lumbo-sacral pain, whose pathology was obscure at the time of examination, but suggestive of the Arthur Hall syndrome of subarachnoid hæmorrhage on re-reading the notes next day.

In heart disease the history is so important compared to the physical signs that Paul White, the American cardiologist, states that in cases where a consultant has not enough time to take the history as well as to examine the patient, it is advisable to delegate the examination to an assistant while taking the history in person.

Another type of case in which the history is all-important, is that which has pain as its only symptom. If the answers to Ryle's ten points* are recorded, the diagnosis is well on the way to being established. Also, future observers will find a basis on which to compare their observations.

A few years ago the sign of a well-trained physician was the ability to write an elegant extempore prescription, with basis, adjuvant, corrective and vehicle all nicely balanced. May I suggest that we now judge a doctor by the quality of the notes he writes?

* *Ryle's ten points.*—(1) Character of the pain. (2) Severity of the pain. (3) Situation of the pain. (4) Extent of the pain. (5) Path of reference. (6) Duration. (7) Frequency of occurrence. (8) Time of occurrence. (9) Aggravating factors. (10) Relieving factors.

CURRENT EVENTS

BRITISH MEDICAL ASSOCIATION

In the preliminary announcement of the 107th annual meeting of the Association the following Bart.'s names appear:

Section of Medicine.—Prof. L. J. Witts (Vice-President).
Section of Orthopædics and Fractures.—H. J. Burrows (Hon. Secretary).
Section of Surgery.—John Hosford (Hon. Secretary).

"PITFALLS IN THE FINAL EXAMINATION AND THE FIRST YEAR OF PRACTICE"

The above is the title of the Annual Address to Senior Students and Newly-qualified Practitioners to be given on Tuesday, March 14th, 1939, in the Great Hall of the B.M.A. House, Tavistock Square, W.C. 1. There will be a reception at 5 p.m., at which refreshments will be served, and at 5.30 p.m. the Address will be delivered by Mr. W. McAdam Eccles, M.S., F.R.C.S., Consulting Surgeon to this Hospital.

ELEVENTH DECENNIAL CLUB

Mr. Wilfred Shaw and Mr. F. C. W. Capps send the following: The Annual Dinner of the Eleventh Decennial Club will be held at the Café Royal on Friday, April 28th. John Hosford, Esq., M.S., F.R.C.S., will be in the Chair. The secretaries wish it to be known that there is great difficulty in keeping an up-to-date record of the addresses of the members. If, therefore, any members of the Club do not receive notices, will they please communicate directly with the secretaries.

100% BONUS!

Sir Girling Ball has very generously offered to double the gate receipts for the Rugby Match *v.* Redruth on Saturday, March 4th, if they reach £12 10*s.*—so come in hundreds!

SPORTS NEWS

EDITORIAL

Junior Sides

Now that the surge and thunder of the Odyssey in the shape of the Senior Rugger Cup is close upon us, it seems time, more almost for the benefit of those of our readers not concerned at the moment with the Hospital than for the present members of the sports clubs, to talk of the smaller man.

How few people may know even of the existence of our six rugger, three hockey and two soccer sides, and of the Junior Cup matches which are played with perhaps less publicity, but certainly as much fire and enthusiasm as their big brothers. Yet, while the 1st XI's and XV are struggling in the limelight, let us stop to give a measure of praise to those who play the "Junior Cuppers" with such verve, and to those, our almost unrecognized foundations, who are as yet competing for the distinction of being included in these—the Junior Sides.

RUGBY CLUB *v.* **Moseley.**

The last morning game against Moseley was played at Chislehurst on January 21st. It has been replaced by an afternoon game. Although lost 9—0, it was short and sweet owing to a late start. Moseley kicked off and carried the ball into the Bart.'s half, where neither side made much progress. The best movement occurred when, from a clean heel by Greenburg, Pleydell took a reverse pass from Candler and sent the ball down the line to Griffiths, who, after a fine run, was pulled down. The half-time whistle came as Moseley were making several dangerous raids. The second half opened with some fine touch-kicking by Candler, but Bart.'s were forced into their "25", and after some scrambling play the Moseley forwards scored under the posts. After the conversion Moseley were soon in the attack, and a fine drop goal by Hill quickly followed. Several promising movements by the Bart.'s outsides were unable to penetrate the stubborn Moseley defence.

v. **Old Paulines.** This match was played at Chislehurst on Saturday, February 18th, and resulted in a victory for the Hospital by a goal, a penalty goal, a dropped goal and two tries (18 pts.) to a goal (5 pts.).

The game began very scrappily, and it was some time before the sides settled down to play constructive football. Our pack were not well together, and we would suggest a change of leadership, leaving the present leader to concentrate on his own individual type of adventuring. When our mid-field players had ceased dithering amongst themselves and sent the ball swiftly to the wings our attack improved tremendously, and as a result some fine tries were scored from well-executed movements.

Two tries were scored by Pleydell in the first half after good handling by Candler and Laybourne. Macpherson failed from a difficult position to convert the first, and Candler added the extra points from in front of goal from the second.

The second half began at a cracking pace, and the O.P's. were getting a fair share of the ball, but their backs lacked thrust and our defence was very sound. Bart.'s returned to the attack, and from a mêlée on the O.P's. "25" line the ball was passed back to Pleydell, who dropped a very good goal. Soon after this Macpherson landed a penalty with a long kick. The O.P's. now began to get more than their share of the game, and the magnificent defensive kicking of Candler was invaluable. At last their efforts were rewarded by a try from a loose forward rush, which was converted by the ever-green, or perhaps red, Hogbin. Near the end Griffiths, who had not had the ball as often as he should, scored far out, but the kick failed. The game was made the more enjoyable by the excellent refereeing of Mr. C. H. Gadney.

INTER-HOSPITALS SENIOR CUP COMPETITION The 1st round Cup match *v.* **University College Hospital** was played at Chislehurst on February 9th, and was a most exciting game, the Bart.'s team producing a fighting spirit which enabled them to beat what was perhaps a more skilful side.

After 20 minutes of rcrappy play Bart.'s were two goals down, and U.C.H. were playing more and more together as an effective team. Both their goals were scored as the result of the hesitancy and "gentlemanly" tactics of the Bart.'s team, and although Osmont scored for us after 30 minutes, U.C.H. scored again before half-time, and, as the B.B.C. have it, "the further outlook was unsettled". Osmont's goal was a truly remarkable affair: he crashed the ball in on the half-volley from quite 25 yards' range, but this was the one ray of sunshine which served but to emphasize the general darkness of the Bart.'s prospects at the interval.

Twenty minutes after half-time Gallimore scored for us, but almost immediately afterwards Rees, the U.C.H. inside left, broke away, and his partially-cleared centre was converted, to make the score 4—2 against us.

From that moment the game underwent one of those dramatic changes so beloved of the story-writer. The Bart.'s team began to play with splendid spirit ; defence and attack alike fought hard for the ball, and time and again secured it by sheer determination. The inside forwards, too, began to pass with considerable accuracy, and Bart.'s were undoubtedly the better side at the end.

With 15 minutes to go James scored a very well-earned goal, and soon afterwards Nicholson put in a high dropping shot from the edge of the penalty area, the goalkeeper being rushed into the net before he could clear the ball, which he had caught. Elder, Maples, Royston and James all had good shots saved by U.C.H.'s very capable goalkeeper, but finally Nicholson sent over one of a series of excellent corner-kicks, and Osmont "nodded the leather between the uprights", to give Bart.'s a most exciting victory by 5 goals to 4.

Elder set the team a fine example by his persistence throughout, and Packer was quite exceptionally good, while James was outstanding at centre-forward; his determination and general toughness often when entirely unsupported in attack were splendid. The extreme wing-men also played in their best style.

Team.—W. D. Mail ; F. H. Packer, N. G. McGuire ; A. Maples, P. M. Elder (capt.), D. Harland ; C. G. Nicholson, R. L. Osmont, A. R. James, J. O. Gallimore, G. R. Royston.

1st XI *v.* **Middlesex Hospital.** Away. January 28th. Won, 3—0. From the beginning of the game it was manifest that Bart.'s would be in control of the proceedings, as they showed better individual play and combination than the opposing team. Repeated attacks on the Middlesex goal, however, were aborted by the energy and good football of the backs. A break-away by Nicholson on the right wing, however, gave us the lead halfway through the first half. Middlesex fought back, and for a time our defence was kept hard at work, and had it not been for the inaccurate shooting, and delivery of centres from the wings to behind the goal line, they probably would have scored. From a goal-kick Maples passed the ball up the centre, and good following up by the inside forwards gave us a second goal from Kingston. The second half was uneventful, but it added a third goal from Gallimore.

1st XI *v.* **Caius College, Cambridge.** Home. February 4th. Won, 2—1. With ten men for the whole game, Bart.'s did well to be one goal up against a team with several good individual players. The game opened with attacks in our half of the field, and Caius had soon scored one goal after a scramble in the penalty area. Bart.'s, however, showed superiority in most departments after this, and the hard work of the forwards was soon rewarded. Royston centred well, and Osmont well fulfilled the positions of inside and outside right, but in spite of this, the presence of another man on the wing was sorely missed. One of Osmont's many good centres was taken up by Gallimore, who cut in and put a low accurate shot a short way inside the post. In the second half we repeated our good performance, and after Evans had given us the lead would have been one more goal up had not a long shot from Harland hit the cross-bar. It was an encouraging game, with everyone playing with more energy and surety than in the past games of the season.

1st XI *v.* **Brighton Old Grammarians.** Away. February 11th. Won, 2—1. With nine men for most of the second half of this game, and with only five regular first-team members playing, we put up a good fight against a moderately good team. The enthusiasm and energy of the previous games of this month was once more displayed and soon brought an early goal through Roberston. Our defence was kept busy, but the backs defended well. The half-time score of 1—1 was discounted when a centre from the right wing was well headed into the net by Robertson.

Second Round Cup Match

2nd XI *v.* **Charing Cross Hospital 1.** Home. February 2nd. Won, 3—0. This satisfying result was the reward of a hard-working team playing well together, and at times very good football. It was a fair representation of the run of the play, for we did most of the attacking. Without the help of one of their backs, who was later moved into the forward line, Charing Cross probably would have been some more goals down.

Gordon at right half did much valuable work, both in defence and attack, feeding his forwards with well-timed and accurate passes. Evans, who plays equally well in nearly all places on the field, was playing for the first time, this season on the right wing, and after taking the first half to settle down to his new position, did excellent work in the second half, attacking down the side of the field and lifting the ball into the centre. The veteran captain, Howell, did less work than usual, but just enough to keep a steadying influence on the other members of the team. The inside forwards, Grossmark and Routledge, both did good work in attack, and also in retrieving the ball when in our half of the field.

The game started off at a fairly fast pace with our forwards attacking persistently. The passing and individual play was good, but after the excitement of beating their men, the forwards forgot their balance, and several times lifted the ball over the bar instead of underneath it. Not till the second half did they open the score, when Routledge took a hard low shot which went between the goalkeeper's legs. This unfortunate goal seemed to demoralize our opponents, whose defence from that moment became less effective. It was still active, however, in placing our forwards off-side, for which we were penalized many times. Evans later cut in and put in a good shot across the goal-mouth. Soon after this Grossmark added a third goal to make sure of a satisfactory victory.

Team.—G. H. Wells-Cole ; A. H. Phillips, D. Harland ; W. Gordon, D. R. S. Howell, G. H. Darke ; G. R. Evans, R. T. Routledge, D. Robertson, S. Grossmark, J. Birch.

THE UNITED HOSPITALS BOXING CHAMPIONSHIPS were held in the Stadium Club on the evening of February 3rd, before a cheerful and noisy crowd. The position of Bart.'s in the final list was poor—next to bottom ; this was partly due to the fact that her best boxers were not lucky enough to get a win in the finals, in spite of some good efforts, and also due to the fact that no fly-weight, bantam or heavy could be produced. (Disappointing when we have such good training quarters, and one of the best trainers in London.)

E. LEVINE was beaten by T. R. Wooldridge of Guy's in the preliminaries of the middle-weights. Levine tried hard to box carefully and was using his left well, but his poor guard led to his undoing in the second round, which opened with some heavy hitting by Wooldridge. Levine fought back pluckily and took a lot of punishment before the fight was stopped towards the end of the second round.

T. J. BRADY was beaten by D. M. L. Doran of Thomas's. This was a fine fight with good fast boxing on both sides. The old Oxford Captain has recovered much of his form, but Brady held his own, and did well by frequent attacking. When the end came it was by no means obvious which way the decision would go, and the result might well have been different if Brady had been able to do a little more heavy punching.

A. P. BENTALL beat W. E. Mahon of London Hospital in the semi-final of the light-weights. This was a hard fight, and Bentall received one or two heavy blows in the first round ; he fought back well, however, and after a fast hard-hitting contest gained the decision on points.

J. W. G. EVANS was beaten by P. E. Coffey of Thomas's after a very fine effort indeed. There was much close hard hitting in the first round, with Evans countering well. In the second round Coffey landed a left hook to the stomach followed by a right to the head which put Evans down for seven. He recovered, however, and kept his opponent off cleverly until the end of the round. There was some good boxing on both sides in the third round, but Coffey gained a decisive victory.

R. S. HENDERSON was beaten by R. W. Ross (Mary's) in the semi-finals of the light-heavy. This was a wild fight with untidy hitting, and too much rushing on both sides. Henderson, who was giving away a lot of weight, used his left well, but did not box cleverly enough to keep Ross away. In the third round Ross landed a perfect right to the jaw which settled things in no uncertain manner.

A. P. BENTALL was beaten in the finals of the light-weights by A. A. Halamandres, of Guy's, who won with a technical knock-out early in the first round. Halamandres, fresh from two previous knock-outs, started early with a rush of heavy blows to the head. Bentall tried hard to fight back, but went down twice before the fight was stopped.

The final results were : Guy's, 26 ; Thomas's, 18 ; London, 15 ; Mary's, 14 ; Bart.'s, 7 ; Charing Cross, 1.

HOCKEY January was a most depressing month; only one game was played, and that against the Old Southendians, at Foxbury, was lost by 1—4, our worst defeat for some time. Fortunately we received a bye in the 1st round of the Cup !

February.

v. **University College Hospital,** at Perivale Won, 5—1. 2nd round Cup-tie. A cold and windy day and a long wait before the start made our first-minute score rather surprising. From the bully-off the ball went to Hewitt on the right wing, who ran in and passed to the centre-forward, who scored.

U.C.H. resented this strongly and attacked unceasingly, soon scoring their only goal of the match through the right half. Gaining the ascendancy with a further goal in the first half, the result was thereafter never in doubt, Marrett at centre-half being more than adequate in defence and attack. J. N. Fison (3) and R. Heyland (2) scored the goals.

v. **Seaford College,** at Seaford. Won, 6—4. This spate of goals was due, probably, to the combination of a rough pitch with extremely vigorous umpiring, the latter making any consecutive play for more than 15 seconds out of the question. The most striking contrast of the day was provided by the diminutive Seaford goal-keeper, who was kept very busy, and who saved his side from the indignity of a double-figure score. Poor play by our defence accounted for the 4 goals scored against us, although most of it was quite excusable in the circumstances, for to stop the ball at all was tantamount to obstruction, and to side-step one's opponent turning. We retired hastily through an avenue of mildly cheering scholars, some of whom wore faces which belied their vociferations, but there was no repetition of the most unfortunate attack of booing which greeted the employment by a member of our defence—who shall be nameless—of a very fine half-nelson tackle during the closing stages of the game.

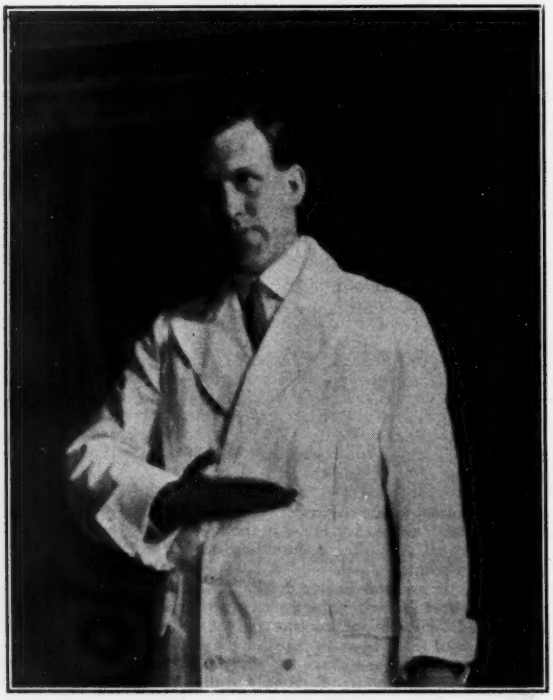
v. **Staff College,** at Camberley. Won, 4—2. Blazing sun and a perfect pitch combined to make this the fastest game of the season, and before we were anything like under way the Staff College centre-forward scored from a rebound. Throughout the game our opponents' policy of the quick follow-up was baulked of its due and rightful reward only by the excellence of Akeroyd in goal. Our first goal was scored by Heyland at inside left, from a cross-pass from the right half, and a few moments later Bentall was unlucky not to score when he ran in and took the ball on the reversed stick. The forwards were beginning to swing the ball about and combined really well. Before half-time J. N. Fison scored with a very good shot. A plethora of short corners against the Hospital marked the closing stages of this half, but none crossed the line between the posts.

Early in the second half Staff College scored from a centre from the right which reached the inside left, who caught the goal-keeper on the wrong foot. After this the defence proved adequate in spite of many successful attacks from the right Ellis, at left back, being outstanding, and Masina, back at his old station, was very safe indeed—his excellent sense of position serves him well even when fresh from retirement.

Age began to tell very quickly now, and our third goal by Bentall was most exemplary, Fison running out to the edge of the circle on the right to hook back a through pass into his waiting stick. Finally our efforts were crowned by a further goal from a penalty corner. Staff College made no further attacks of a serious nature, and we had the satisfaction of beating a team which just previously had showed the way to an O.U. Occasionals side.

Matches to February 11th : Played 18, won 9, drawn 2, lost 7. Goals for, 58; against, 45.

OUR CANDID CAMERA



"The Pyloric Salute."

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN

BALL, Sir GIRLING, F.R.C.S. "Staphylococcal Infections of the Kidney." *British Journal of Urology*, December, 1938.

BOURNE, GEOFFREY, M.D., F.R.C.P., and EVANS, COURTENAY, M.D., M.R.C.P. "The Four-lead Electro-cardiogram in Angina of Effort." *Lancet*, December 10th, 1938.

BREWER, H. F., M.D. *See* HOWKINS and BREWER.

CHOPRA, R. N., C.I.E., M.D., Sc.D., F.R.C.P. (and GHOSH, S., and DUTT, A. T.). "Some Inorganic Preparations of the Indian Indigenous Medicine." Part VI. *Samudra Phena. Indian Journal of Medical Research*, October, 1938.

——— (and CHATTERJEE, R. G., DE, N., and GHOSH, S.) "A Preliminary Note on the Chemistry and Pharmacology of the Leaves of *Skimmia laureola*, Hook F." *Indian Journal of Medical Research*, October, 1938.

COYTE, RALPH, F.R.C.S. "Trusses and Belts." *British Medical Journal*, December 24th, 1938.

CULLINAN, E. R., M.D., F.R.C.P. "Ulcerative Colitis: Clinical Aspects." *British Medical Journal*, December 31st, 1938.

CUMBERBATCH, ELKIN P., M.B., B.Ch., F.R.C.P., D.M.R.E. *Essentials of Medical Electricity*, Eighth edition. London: Kimpton, 1939.

EVANS, COURTENAY, M.D., M.R.C.P. *See* BOURNE and EVANS.

HALDIN-DAVIS, H., M.D., F.R.C.P., F.R.C.S. "Skin Diseases in the Winter." *Practitioner*, December, 1938.

HEWER, C. LANGTON, M.B., D.A. "Anæsthesia." *Medical Annual*, 1938.

——— "Spinal Analgesia." *Medical Press and Circular*, May, 1938.

——— (and BELFRAGE, D., M.B.) "Trichlorethanol on Trial." *Lancet*, December 3rd, 1938.

HOWKINS, JOHN, M.D., M.S., F.R.C.S. (and JEFFRERISS, D., B.M.). "True Oxycephaly with Case-Report." With Pathological Note by RICHARD S. HANDLEY, M.B. *Lancet*, November 26th, 1938.

——— and BREWER, H. F., M.D. "Placental Blood for Transfusion." *Lancet*, January 21st, 1939.

HUNT, ALAN H., B.M., F.R.C.S., and JEWESBURY, ERIC C. O., B.M., M.R.C.P. "Perforated Peptic Ulcer in Organic Nervous Disease." *British Medical Journal*, November 26th, 1938.

HUNTER, J. T., M.R.C.S., L.R.C.P. "Anæsthesia in Thoracic Surgery." *British Medical Journal*, January 21st, 1939.

JEWESBURY, E. C. O., M.R.C.P. *See* HUNT and JEWESBURY.

KEYNES, GEOFFREY, M.D., F.R.C.S. "Tuberculosis of the Thyroid Gland." *Lancet*, December 10th, 1938.

MAXWELL, JAMES, M.D., F.R.C.P. "Staphylococcal Septicæmia Treated with M. and B. 693." *Lancet*, November 26th, 1938.

MILNER, J. G., B.Ch., F.R.C.S. "Glaucoma." *Post-Graduate Medical Journal*, December, 1938.

MYERS, BERNARD, C.M.G., M.D., F.R.C.P. "Gaucher's Disease from the Clinical Point of View." *Post-Graduate Medical Journal*, January, 1939.

NAPIER, L. EVERARD, M.R.C.S., L.R.C.P. (and MAJUMDAR, D. N.). "Hæmatological Studies in Indians. Part IX. The Analysis of the Hæmatological Findings in 57 Cases of Anæmia in Pregnant Tea-Garden Coolie Women with Special Reference to the Results of Treatment." *Indian Journal of Medical Research*, October, 1938.

ROCHE, ALEX. E., M.D., M.Ch., F.R.C.S. "Orchitis, Varicocele and Twisted Cord." *British Medical Journal*, January 7th, 1939.

SHARP, B. BUCKLEY, M.D., M.R.C.P. "Syphilis of the Central Nervous System." *Post-Graduate Medical Journal*, December, 1938.

——— "Prevention and Treatment of Neuro-Syphilis." *Post-Graduate Medical Journal*, January, 1939.

SHORE, L. R., M.B., M.R.C.P., D.P.H. "A Note on the Interparietal Groove in Egyptian Skulls." *Journal of Anatomy*, October, 1938.

SLOT, GERALD M., M.D., M.R.C.P., D.P.H. "Ammonia for Burns." *Lancet*, December 10th, 1938.

SNOWDEN, ERNEST N., M.B., B.S. "Self-Consciousness and Public Speaking." *Lancet*, January 14th, 1938.

WALKER, KENNETH M., O.B.E., F.R.C.S. "Practical Points in Diseases of the Testicle." *Clinical Journal*, October, 1938.

——— "Circumcision." *British Medical Journal*, December 31st, 1938.

WARING, JOHN, M.R.C.S. "Needle for Continuous Intravenous Drip Therapy." *Lancet*, November 19th, 1938.

WITTKOWER, ERICH, M.D., L.R.C.P. "Ulcerative Colitis: Personality Studies." *British Medical Journal*, December 31st, 1938.

WOOD, W. BURTON, M.D., M.R.C.P. (R. C. COHEN, M.D., and W. B. W.). "Cerebral Paratuberculosis." *Lancet*, December 10th, 1938.

YOUNG, F. H., O.B.E., M.D., F.R.C.P., D.P.H. "The Management of Chronic Bronchitis in the Winter." *Practitioner*, December, 1938.

EXAMINATIONS, ETC.

UNIVERSITY OF CAMBRIDGE

Third Examination for Medical and Surgical Degrees, Michaelmas Term, 1938.

Part I.—Dalliwall, K. H. S., Dixon, K. C., Evans, W. B., Fletcher, C. M., Hearn, R. D., Phillips, A. L.

Part II.—Brennan, E. B., Clutton Brock, J., Ellis, A. R. P., Gardner, E. K., Harmer, M. H., Hoskyn, C. H., Jack, R. D. S., Moore, M. E., Sturdy, D. C., Wright, B. M.

UNIVERSITY OF LONDON

M.D. Examination, December, 1938.

Branch I (Medicine).—Clarke, R. F., Latter, K. A.
Branch II (Pathology).—*Macfarlane, R. G.
Branch IV (Midwifery and Diseases of Women).—Rees, E. R.

*Awarded University Medal.

M.S. Examination, December, 1938.

Branch I (Surgery).—Bintcliffe, E. W.

First Examination for Medical Degrees, December, 1938.

Ball, E. W., Bullough, J., Curé, S. M. F., Davies, T. D. L., Davies, W., Durham, P. D. A., Evans, T. G., Ezra, C. J., Imossi, E. A., Jones, W. K., Lyster, J. N., Mackay-Scollay, E. M., Mackenzie, W., Morris, J. L., Musgrave, S. R., Nazroo, I. A., Osmont, R. L., Pracy, J. P., Ridge, L. E. L., Sanders, C. D., Siegler, J., Sills, O. A., Tata, M. N., Thorne, N. A.

ROYAL COLLEGE OF PHYSICIANS

The following have been admitted to the **Membership**:
Boden, G. W., Kanaar, A. C.

ROYAL COLLEGE OF SURGEONS

The **Fellowship** has been conferred on the following:

Blusger, I. N., Bremer, J. K., Chandra, S. R., Cooper, D. M., Desai, N. R., Drake, E. P. Hall, Dunlop, E. E., Eddey, H. H., Griffiths, I. H., Hambly, E. H., Mahadevan, R. I., Mazhar, K., Norman, H. R. C., O'Donoghue, J. G., Sobhi, H.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS

The following **Diplomas** have been conferred:
D.A.—Mart, W. T. D.
D.P.H.—Briggs, G. O. A.

CONJOINT EXAMINATION BOARD

Pre-Medical Examination, December, 1938.

Chemistry.—Hopwood, G. M.

First Examination, December, 1938.

Anatomy.—Bickford, J. A. R., Brewerton, R. S. E., Fison, J. L., Thrower, A. L.
Physiology.—Bickford, J. A. R., Helme, P. E., Thrower, A. L.
Pharmacology.—Coupland, H. G., Lemerle, M. E., Marrett, H. R.

Final Examination, January, 1939.

The following students have completed the Examinations for the Diplomas of **M.R.C.S., L.R.C.P.**:

Blanshard, T. P., Campbell, D. H., Cates, R. N., Clarke, T. H. W., Cole, M. J., Crabb, E. R. T., Davies, I. R., Dunn, J. R., Faulkner, T., Garrod, O., Glatston, H., Gunz, F. W., Hackett, J. T. A., Jackson, C. A., Kelsey, D. N., Mason, M. L., Moynagh, K. D., Murley, R. S., Perrott, J. W., Redman, V. L., Rogers, N. C., Salmon, J. K., Savidge, R. S., Stoker, G. E., Taylor, L. R., Taylor, W. N., Thompson, J. R. O., Whittaker, W. O., Williams, C. G., Williams, E. H., Young, N. A. F.

SOCIETY OF APOTHECARIES OF LONDON

Primary Examination, January, 1939.

Materia Medica and Pharmacology.—Benson, T. L.

Final Examination, January, 1939.

The **Diploma** of the Society has been conferred on :
Headley-Blythe, J. B.

CHANGES OF ADDRESS

ANDERSON, R. S., 133, Pollards Hill South, Norbury, S.W. 16. (Tel. Pollards 1372.)
BRUNYATE, W. D. T., 308, Keyes House, Dolphin Square, S.W. 1. (Tel. Victoria 3800.)
FRANCIS, A. E., 40, Roxborough Park, Harrow, Middlesex. (Tel. Byron 4105.)
GEACH, R. N., Virginia Lawn, Egerton Road, Weybridge. (Tel. Weybridge 2880.)
LYON-SMITH, G. L., Goods Farm, Merridge, Spaxton, near Bridgwater, Somerset.
RICHARDS, F. A., 2, Chesterford Gardens, N.W. 3.
SHRINAGESH, M. M., BM/XPFJ, W.C. 1.

APPOINTMENTS

BRUNYATE, W. D. T., D.M.(Oxon.), D.P.H., appointed Medical Officer to the Ministry of Health, S.W. 1.
FAWCETT, R. E. M., M.B., B.S.(Lond.), Capt. R.A.M.C., T.A., appointed Home Office Medical Instructor, A.R.P. Department.
RAVEN, RONALD W., F.R.C.S., appointed Assistant Surgeon to the Royal Cancer Hospital (Free).

BIRTHS

DEAN.—On January 25th, 1939, at 17, King Street, King's Lynn, Norfolk, to Joan (*née* Coutts), wife of Dr. David M. Dean—a daughter.
GARNHAM.—On February 1st, 1939, at Kisuma, Kenya, to Esther, wife of Dr. P. C. C. Garnham—a daughter.
HOUGHTON.—On January 30th, 1939, at Quarry Place Nursing Home, Shrewsbury, to Frances (*née* Cooper), wife of A. W. John Houghton, of Drapers' Hall, Shrewsbury—a son.
KERSLEY.—On February 12th, 1939, to Dr. and Mrs. G. D. Kersley, 6, The Circus, Bath—a son.
MCNEIL.—On February 6th, 1939, at Allahabad, to Jean Mary (*née* Strain), wife of Capt. Charles McNeil, R.A.M.C.—a daughter.
NICHOLSON.—On January 29th, 1939, to Frances (*née* Burdon-Cooper), wife of Dr. B. Clive Nicholson, of 17, South Close, Pinner—a daughter.
SIMON.—On February 6th, 1939, at 19, Bentinck Street, W. 1, to Charlotte, wife of George Simon, M.D.—a son.

MARRIAGES

BURNETT—PEARSALL.—On January 26th, 1939, in London, F. Marsden Burnett, M.D., D.P.H., of Sevenoaks, to Mrs. Marjorie Pearsall, of Prince of Wales Mansions, S.W. 11.
ENRAGHT—BESEKE.—On February 4th, 1939, William Enraght, L.R.C.P.(Lond.), M.R.C.S.(Eng.), to Miss Maud Beseke, of "Milford", Etchinghill, Kent.

DEATHS

GANE.—On February 9th, 1939, at Castle Green, Llansawel, Llandilo, Carmarthenshire, Edward Palmer Steward Gane, M.D.(Durh.).
OKELL.—On February 8th, 1939, Charles Cyril Okell, M.C., M.B., Sc.D., F.R.C.P., late Professor of Bacteriology in the University of London, of Ferry Corner, Chesterton, Cambridge, aged 50.
WARRACK.—On January 24th, 1939, at Gravesend, James Stratton Warrack, T.D., Col. A.M.S.(T.), M.A., M.D., C.M.(Aberd.), D.P.H.